Project Introduction

Speech recognition technology is relatively mature. In spite of this it is not always accurate. Greater accuracy occurs when the speech is constrained by the context of the application. For instance, when using Siri to interact with an iPhone, there are a limited number of topics and interactions available. Gesture recognition is a newer technology, but is becoming viable, particularly with the advent of the Microsoft Kinect. Gesture recognition provides additional context for speech recognition; speech provides context for gestures. Integrating both would provide a much more robust environment for human computer interaction. Survey of the technical field was accomplished. Basic software and hardware, including microphones, cameras and 3D depth sensors was procured. Basic equipment functionality has been demonstrated. Groundwork has been laid for continued efforts.

Primary U.S. Work Locations and Key Partners

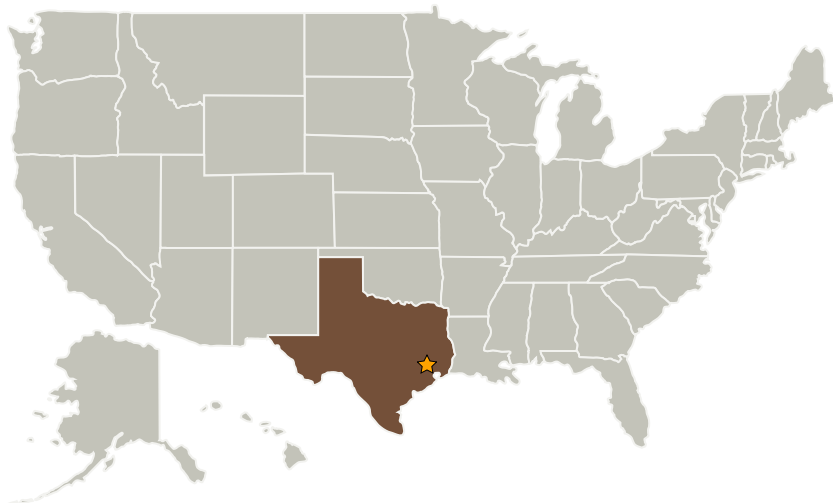| Organizations Performing Work	Role	Type	Location
⭐Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas

Primary U.S. Work Locations
Texas

Project Image Integration of Voice and Gesture

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Center Innovation Fund: JSC CIF

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Images

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Project Image Integration of Voice
and Gesture
*(https://techport.nasa.gov/imag
e/2221)*

Project Management

Program Director:

Michael R Lapointe

Program Manager:

Carlos H Westhelle

Project Manager:

David A Overland

Principal Investigator:

David A Overland

Technology Maturity (TRL)

Start: **2**
Current: **3**
Estimated End: **3**

1	2	3	4	5	6	7	8	9
Applied Research			Development			Demo & Test		
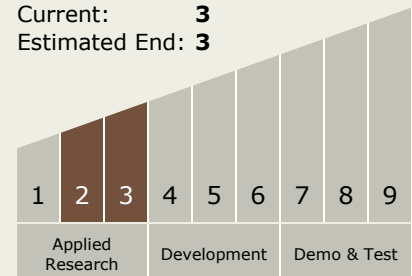
Technology Areas

Primary:

- TX07 Exploration Destination Systems
  └ TX07.3 Mission Operations and Safety
    └ TX07.3.3 Training